TASK ORDER (TO)

47QFCA21F0018

Technology Synchronization of Business Operations (TSyBO)

in support of:

Department of Defense (DoD) Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) and Office of the Chief Management Officer (OCMO)

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C.1 BACKGROUND

The Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) is the principal staff office for the Department of Defense (DoD) on all budgetary and fiscal matters, including the development and execution of the DoD's annual budget of more than $600 billion. The Comptroller also oversees the DoD's financial policy, financial management systems, and business modernization efforts. The OUSD(C) is chair of the Financial Management Modernization Executive Committee; its goal is to ensure that each of the DoD's critical accounting, financial, and data feeder systems are compliant with applicable Federal financial management and reporting requirements. The Comptroller is also a member of the Defense Business System Management Committee.

The OUSD(C) manages the development and execution of the DoD budget with an emphasis on improving financial management across the DoD to ensure that taxpayer resources are managed wisely and efficiently. Overall, the OUSD(C) ensures that the United States (U.S.) military has the resources needed to protect and defend the U.S., its interests, and its people.

The DoD's business operations encompass many different functional areas, such as financial management, acquisition and logistics, installations and environment, and human resources management. The Office of the Chief Management Officer (OCMO) is responsible for delivering optimized Enterprise Business Operations to assure the success of the National Defense Strategy. While neither the OUSD(C) nor OCMO is specifically responsible for any of these business areas, the DoD has established senior officials who are responsible. As the leads in the business (i.e., OCMO) and fiscal (i.e., OUSD(C)) responsibility of the DoD, the Secretary of Defense is responsible for working across the DoD functional areas to break down organizational stovepipes and create a cross-functional, end-to-end business environment that is synchronized to rapidly respond to warfighter needs in the most cost-effective way possible.

C.1.1 PURPOSE

The purpose of this TO is to provide enterprise level data to the OUSD(C), OCMO, and its strategic partners (i.e., DoD Fourth Estate, DoD Departments, and IC community) in the areas of Information Technology (IT) engineering, Operations and Maintenance (O&M), technical, consulting, cyber security, and planning subject matter expertise to develop, maintain, sustain, and enhance the DoD Enterprise Government-owned data analytics environment, Advana, that includes connections to other IT supporting systems (i.e., source systems) across the DoD.

C.1.2 AGENCY MISSION

The OUSD(C) and OCMO and are the principal DoD officials responsible to the Secretary and Deputy Secretary of Defense for leading and enabling the management, integration, and improvement of the DoD business environment. Working across the DoD Components, the OUSD(C) and OCMO are focused on delivering agile, efficient, and effective business operations that support the warfighter. This mission is implemented by leading business operations for the DoD through innovative processes and services, data-driven solutions, and mission-focused funding.

C.2 SCOPE

The contractor shall create, deliver, and maintain a cross-functional, end-to-end IT business environment that is synchronized to rapidly respond to warfighter needs in the most cost-effective way possible. The contractor shall provide full lifecycle IT support for the Advana platform including, but not limited to, product management, IT systems engineering, and development activities; user engagement activities; operational, external, and internal interface management; systems certification; mission IT engineering; metrics collection and analysis; and modeling and simulations.

C.3 CURRENT ENVIRONMENT

Information is vital to U.S. national security and the ability to understand emerging threats, project power globally, conduct operations, support diplomatic efforts, and enable global economic viability. The DoD has multiple disjointed and stove-piped information systems, distributed across modern and legacy infrastructure around the globe, leading to a litany of problems that impact warfighters', decision makers', and DoD staff's ability to organize, analyze, secure, scale, and ultimately, capitalize on critical information to make timely, data-driven decisions. Today, the DoD is largely constrained by physical resources, manpower limitations, organic skillsets and, oftentimes, laborious contracting processes to procure or grow storage and computing capabilities. In addition, the cyberspace domain continues to be an increasingly contested environment. In order for the U.S. to keep its strategic advantage, warfighters and the workforce that support them need to be provided with the proper capabilities and technologies to succeed. To this end, commercial industry has made significant strides in addressing these challenges that the DoD can leverage.

The OUSD(C) and OCMO provide integration and support through the Chief Financial Officer (CFO) Data Transformation Office. They are establishing a framework to leverage commercial industry technologies for more effective management in a time of fiscal austerity, utilizing the key levers of strategy, people, process, technology, and controls. Integrated project teams are engaged to bring together the resources and capabilities of the OUSD(C) and OCMO to actively work on a host of high-profile projects that will lead to significant cost savings, cost avoidance, and improved utilization of DoD capabilities for data input.

The DoD requires use of an open standards system approach, to the maximum extent practical, to achieve superior war fighting capability with reduced total operating costs. Open standards systems are expected to control development costs, provide quicker access to emergent technologies, significantly improve network performance, and reduce the costs to maintain and upgrade network systems over ever-increasing lifetimes.

In 2019, the Data Management and Analytics Steering Committee (DMASC) approved the technical architecture and the tool suite employed by a Government-developed suite of tools called Advana, to be the shared service data platform for all common enterprise data. As a shared service, Advana provides a common data platform and a suite of tools to accelerate the delivery of new analytics projects and contributes to DoD becoming a data-driven organization. This is one part of the large framework that is purpose-built to advance analytics across the DoD by

collecting enterprise data in a common place and building common data models to allow ease of access and understanding for all who require it.

C.4 OBJECTIVE

The objective of this TO is to deliver the highly specialized operational and technical expertise required to improve and strengthen OUSD(C) and OCMO IT Enterprise Business Operations.

The specific outcomes for this effort are to:

a. Support the development of innovative models and tools to be integrated into existing (i.e., Advana) and new DoD systems in support of specific problems currently facing OUSD(C) and OCMO. It is anticipated that, these business problems will be in the functional areas of intelligence, acquisition, human resources, real property management, readiness, IT, acquisition, financial management, supply chain, logistics, policy, and warfighting operations.
b. Develop and integrate capabilities in a manner that leverages current market capabilities and emerging industry technologies.
c. Perform administrative, operational, maintenance, and programming responsibilities for the OUSD(C) and OCMO IT Enterprise.
d. Provide flexibility to respond to new feature requirements as directed by the OUSD(C) and OCMO or their strategic partners.
e. Enable actual capability delivery by ensuring that developed capabilities are integrated into the DoD end user environment using an agile software Development and Operations (DevOps)-centered framework for all projects.

C.5 TASKS

The following tasks are intended to cover the scope of work anticipated by the OUSD(C) and OCMO. Specific work products within the work scope may shift based on needs.

The contractor shall provide all expertise and services as stated in the TO to deliver the integrated technical services.

Specific tasks to be performed under the TO include:

a. Task 1 – Provide Program Management
b. Task 2 – Platform/Systems Architecture Development, Integration, and Maintenance Services
c. Task 3 – Data Science and Enterprise Analytics Services
d. Task 4 – End User Support Services
e. Task 5 – Innovative IT Technologies Research and Integration Services

C.5.1 TASK 1 – PROVIDE PROGRAM MANAGEMENT

The contractor shall provide program management support under this TO. This includes the management and oversight of all activities performed by contractor personnel, including

subcontractors, to satisfy the requirements identified in this Performance Work Statement (PWS).

In rare circumstances and unique events (e.g., new policy mandates, world events, etc.), requirements will be directed through Technical Direction Letters (TDLs) (**Section J, Attachment I**), as specified in **Section H.20**. Such TDLs, will be used to identify and track operational support needs. The Government expects that 10-15 percent of requirements will be supported through TDLs on an annual basis within a Period of Performance, consisting of various appropriation types (e.g., one-year, two-year, or no-year), depending on the bona fide need. Overarching Advana platform lifecycle and enhancement support; and program management support shall be ongoing throughout the life of the TO; a TDL will not be issued for such tasks and subtasks.

C.5.1.1 SUBTASK 1.1 – ACCOUNTING FOR CONTRACTOR MANPOWER REPORTING

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the OUSD(C) and OCMO via a secure data collection site: System for Award Management (SAM). The contractor shall completely fill in all required data fields using the following web address: https://beta.sam.gov/.

Reporting inputs will be for the labor executed during the period of performance during each Government Fiscal Year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported No Later Than (NLT) October 31 of each calendar year. Contractors may direct questions to the support desk at: https://beta.sam.gov/.

Contractors may use Extensible Markup Language (XML) data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a contractor's systems to the secure website without the need for separate data entries for each required data element at the website. The specific formats for the XML direct transfer may be downloaded from the web.

C.5.1.2 SUBTASK 1.2 – COORDINATE A PROJECT KICK-OFF MEETING

The contractor shall schedule, coordinate, and host a Project Kick-Off Meeting at the location approved by the Government (**Section F, Deliverable 01**). The meeting shall provide an introduction between the contractor personnel and Government personnel who will be involved with the TO. The meeting shall provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include Key contractor Personnel, the OUSD(C) and OCMO TPOCs, the FEDSIM COR, and other relevant Government personnel.

At least three days prior to the Project Kick-Off Meeting, the contractor shall provide a Project Kick-Off Meeting Agenda (**Section F, Deliverable 02**) for review and approval by the FEDSIM COR and the OUSD(C) and OCMO TPOCs prior to finalizing. The agenda shall include, at a minimum, the following topics/deliverables:

a. Points of Contact (POCs) for all parties.

b. Personnel discussion (i.e., roles and responsibilities and lines of communication between contractor and Government).
c. Project Staffing Plan and status.
d. Transition-In Plan (**Section F, Deliverable 03**) and discussion.
e. Security discussion and requirements (i.e., building access, badges, Common Access Cards (CACs)).
f. Financial reporting and invoicing requirements.
g. Baseline Quality Management Plan (QMP) (**Section F, Deliverable 04**).
h. Earned Value Management (EVM) Plan (**Section F, Deliverable 05)**.
i. Project Management Plan (PMP) (**Section F, Deliverable 06**).
j. Project Integrated Master Schedule (IMS) (**Section F, Deliverable 07**).

The Government will provide the contractor with the number of Government participants for the Project Kick-Off Meeting, and the contractor shall provide sufficient copies of the presentation for all present.

The contractor shall draft and provide a Project Kick-Off Meeting Minutes Report (**Section F, Deliverable 08**) documenting the Project Kick-Off Meeting discussion and capturing any action items.

C.5.1.3 SUBTASK 1.3 – IMPLEMENT A TASK ORDER (TO) MANAGEMENT PORTAL SOLUTION

The contractor shall implement a TO Management Portal (**Section F, Deliverable 09**) capability that provides project management views/reporting, tracks metrics, and stores artifacts at the unclassified level. The intent of the TO Management Portal solution is to introduce efficiencies, ensure coordinated service delivery worldwide, and provide a repository for TO deliverables and artifacts. The Government seeks innovation for managing workflow processes and desires the TO Management Portal solution to possess an automated workflow process.

The contractor shall ensure the TO Management Portal solution is accessible to approved Government and contractor personnel with a .mil or a .gov account. Worldwide access to the TO Management Portal should be available to approved users. The TO Management Portal solution shall be compliant with current standards and adaptable for future DoD security standards. The contractor may use Open Source solutions and Commercial Off-the-Shelf (COTS) or Government Off-the-Shelf (GOTS) software to the maximum extent practicable.

The contractor shall provide a demonstration of the TO Management Portal at the Project Kick-Off Meeting. Once the FEDSIM COR provides the contractor with authority to proceed, the contractor shall begin implementing the approved solution in a timely and efficient manner.

At a minimum, the TO Management Portal shall provide the following:

a. Secure logical access controls with role-based views (e.g., FEDSIM COR, OUSD(C) and OCMO TPOCs, and others as required).
b. A dashboard for overarching Advana platform lifecycle support activities and associated costs, and include the following:

1. Allocated budget by CLIN.
2. Funded Amount by CLIN
3. Incurred cost amount by CLIN.
4. Invoiced amount by CLIN.
5. Burn Rate by CLIN.
6. Award Fee Earned

c. A dashboard that identifies each TDL being supported, describes its associated Technical Data Package (TDP), and includes the following:
    1. TDL Identification (ID) number.
    2. Client Name.
    3. TDL Name.
    4. Abbreviated work description.
    5. Customer POC information.
    6. Contractor POC information.
    7. TDL start date.
    8. TDL end date.
    9. Allocated budget by CLIN.
    10. Funded amount by CLIN.
    11. Incurred cost amount by CLIN.
    12. Invoiced amount by CLIN.
    13. Burn Rate by CLIN and by TDL.
d. An automated workflow for Government review/approval of each Request to Initiate Purchase (RIP) (**Section J, Attachment N**), and Travel Authorization Request (TAR) (**Section J, Attachment M**), inclusive of the OUSD(C) or OCMO TPOCs and FEDSIM COR.
e. The ability to view financial information to allow the Government to track the financial health of each effort, including the total lifecycle support. The Government will establish the level of granularity needed at the onset of an effort (e.g., TDL, funding document, or line of accounting level).
f. An organized document library to store management-related deliverables (e.g., Monthly Status Reports (MSRs) (**Section F, Deliverable 10**), PMP (**Section F, Deliverable 06**), etc.).

The TO Management Portal solution shall be operational by the end of the transition-in period. The TO Management Portal capabilities are expected to evolve and adapt throughout the life of the TO to meet the mission needs.

C.5.1.4 SUBTASK 1.4 – PREPARE A MONTHLY STATUS REPORT (MSR)

The contractor shall develop and provide an MSR (**Section J, Attachment F**) (**Section F, Deliverable 10**). The MSR shall not include any classified information.

At a minimum, the MSR shall include the following:

a. Activities during reporting period, by task and TDL (include ongoing activities, new activities, and activities completed, and progress to date on all above mentioned activities). Each section shall start with a brief description of the task.
b. Problems and corrective actions taken. Also include issues or concerns and proposed resolutions to address them.
c. Personnel gains, losses, and status (security clearances, etc.).
d. Government actions required.
e. Schedule (show major tasks, milestones, and deliverables; planned and actual start and completion dates for each).
f. Summary of trips taken, or conferences attended (attach Trip Reports to the MSR for reporting period).
g. Changes to the PMP.
h. Current funding and ceiling.
i. EVM statistics.
j. Cost incurred by CLIN and TDL.
k. Accumulated invoiced cost for each CLIN and TDL up to the previous month.
l. Projected cost of each CLIN and TDL for the current month.

C.5.1.5 SUBTASK 1.5 – FINANCIAL REPORTING AND EVM PLAN

The contractor shall develop and monitor a cost sharing model to support long-term sustainment of the Data and Analytics Shared Services. The contractor shall provide reporting on return on investment for licensing costs, infrastructure, custom development, and base support and services **(Section F, Deliverable 43).**

The contractor, shall employ and report on EVM in the management of this TO using a tailored plan consistent with its technical approach. The EVM Plan shall be submitted to the Government for approval (**Section F, Deliverable 05**). The contractor shall be ready to discuss its outline for the EVM Plan at the Project Kick-Off Meeting with the initial EVM Plan due **60 days** after TOA. See **Section H.10**, Earned Value Management, for the EVM guidelines.

C.5.1.6 SUBTASK 1.6 – CONVENE TECHNICAL STATUS MEETINGS

The contractor Program Manager (PM) shall convene the Technical Status Meeting monthly with the OUSD(C) and OCMO TPOCs, FEDSIM COR, and other Government stakeholders (**Section F, Deliverable 11**). The purpose of this meeting is to ensure all stakeholders are informed of the monthly activities and MSR, provide opportunities to identify other activities and establish priorities, and coordinate resolution of identified problems or opportunities. These meetings shall provide an opportunity to share lessons learned and disseminate best practices across TDLs. The contractor PM shall provide minutes of these meetings, including attendance, issues discussed, decisions made, and action items assigned, to the FEDSIM COR (**Section F, Deliverable 12**).

C.5.1.7 SUBTASK 1.7 – PREPARE AND UPDATE A PROJECT MANAGEMENT PLAN (PMP)

The contractor shall document all support requirements in a PMP and shall provide it to the Government (**Section F, Deliverable 06**).

The PMP shall:

a. Describe the proposed management approach.
b. Contain detailed Standard Operating Procedures (SOPs) for all tasks.
c. Include milestones, tasks, and subtasks required in this TO.
d. Provide for an overall Work Breakdown Structure (WBS) with a minimum of three levels and associated responsibilities and partnerships between Government organizations. The WBS shall be updated as needed and with the addition of each TDL. A WBS update does not require the re-submission of a PMP update.
e. Describe in detail the contractor's approach to risk management under this TO.
f. Describe in detail the contractor's approach to communications, including processes, procedures, communication format, and other rules of engagement between the contractor and the Government.
g. Include the contractor's QMP and EVM Plan.
h. Describe common technical architecture and custom architecture used for product development.
i. Describe interaction and reuse for technical architecture.

The PMP is an evolutionary document that shall be updated annually, at a minimum, and as project changes occur. The contractor shall work from the latest Government-approved version of the PMP.

C.5.1.8 SUBTASK 1.8 – PREPARE AND UPDATE AN INTEGRATED MASTER SCHEDULE (IMS)

The contractor shall generate and update a total lifecycle Advana IMS, including updating IMS for each product, identifying resources, establishing critical path items, and addressing schedule conflicts and risks (**Section F, Deliverable 07**). The contractor shall synchronize the IMS with other product IMS' across the program portfolio. The IMS shall be traceable to the Government provided Integrated Master Plan (IMP) events/accomplishments, and WBS.

C.5.1.9 SUBTASK 1.9 – PREPARE TRIP REPORTS

The Government will identify the need for a Trip Report when the request for travel is submitted (**Section F, Deliverable 13**). The contractor shall keep a summary of all long-distance travel including, but not limited to, the name of the employee, location of travel, duration of trip, and POC at travel location. Trip reports shall also contain Government approval authority, total cost of the trip, a detailed description of the purpose of the trip, and any knowledge gained. At a minimum, Trip Reports shall be prepared with the information provided in (**Section J, Attachment G)**.

C.5.1.10 SUBTASK 1.10 – PROVIDE QUALITY MANAGEMENT

The contractor shall identify and implement its approach for providing and ensuring quality throughout its solution to meet the requirements of the TO. The contractor shall provide a QMP and maintain and update it as changes in the program processes are identified (**Section F, Deliverable 04**). The contractor's QMP shall describe the application of the appropriate methodology (i.e., quality control and/or quality assurance) for accomplishing TO performance expectations and objectives. The QMP shall describe how the appropriate methodology integrates with the Government's requirements.

The QMP shall contain, at a minimum, the following:

a. Performance monitoring methods.
b. Performance measures.
c. Approach to ensure that cost, performance, and schedule comply with task planning.
d. Methodology for continuous improvement of processes and procedures, including the identification of service metrics that can be tracked in the TO.
e. Government roles.
f. Contractor roles.
g. Methodology and tools for providing program management support, process management and control, project status and cost (including planned versus actual expenditures) reporting, and program metrics.
h. Approach to risk management, including the offeror's strategies to mitigate or eliminate risks.
i. Approach to coordinating and collaborating with other contractors to ensure risks are mitigated and a successful relationship results.

C.5.1.11 SUBTASK 1.11 – TRANSITION-IN

The contractor shall provide a Transition-In Plan (**Section F, Deliverable 03**) as required in Section F. The contractor shall ensure that there will be minimum service disruption to vital Government business and no service degradation during and after transition. The contractor shall implement its Transition-In Plan NLT 30 calendar days after TOA, and all transition activities shall be completed 60 calendar days after approval of the Transition-In Plan.

C.5.1.12 SUBTASK 1.12 – TRANSITION-OUT

The contractor shall provide transition-out support when required by the Government. The Transition-Out Plan shall facilitate the accomplishment of a seamless transition from the incumbent to incoming contractor/Government personnel at the expiration of the TO. The contractor shall provide a Transition-Out Plan within six months of Project Start (PS) (**Section F, Deliverable 14**). The contractor shall review and update the Transition-Out Plan in accordance with the specifications in **Sections E and F**.

In the Transition-Out Plan, the contractor shall identify how it will coordinate with the incoming contractor and/or Government personnel to transfer knowledge regarding the following:

a. Project management processes.
b. POCs.
c. Location of technical and project management documentation.
d. Status of ongoing technical initiatives.
e. Appropriate contractor-to-contractor coordination to ensure a seamless transition.
f. Transition of Key Personnel roles and responsibilities.
g. Schedules and milestones.
h. Schedule for product backlog prioritization and sprint planning meetings with specific dates and frequency.
i. Actions required of the Government.

The contractor shall also establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings or as often as necessary to ensure a seamless transition-out.

The contractor shall implement its Transition-Out Plan NLT six months prior to expiration of the TO.

C.5.1.13 SUBTASK 1.13 – PROGRAM OF RECORD (PoR) TRANSITION ROADMAP

The contractor shall prepare and update a PoR Transition Roadmap for each product developed under the TO (**Section F, Deliverable 16**). The roadmap shall define the targeted deployment location, timeline, and all development milestones from product inception to fielding.

C.5.2 TASK 2 – PLATFORM/SYSTEMS ARCHITECTURE DEVELOPMENT, INTEGRATION, AND MAINTENANCE SERVICES

The contractor shall provide comprehensive IT development, configuration, maintenance, and cybersecurity support for the OUSD(C) and OCMO IT Enterprise for the Advana analytic environment and connections to other supporting DoD analytic IT environments (i.e., source systems). The contractor shall provide full-scope system, application, network, storage, and security management support. It shall also provide integration and maintenance support for new and existing features, functions, content, and components of the OUSD(C) and OCMO IT Enterprise environment and the Advana analytics environment. In addition, the contractor shall develop a process for proposing, vetting, and executing future products within the existing product lines and any product lines that are developed under this TO for Advana and other supporting DoD analytics environments (**Section F, Deliverable 17**).

C.5.2.1 SUBTASK 2.1 – DEVELOPMENT AND IT ENGINEERING SUPPORT SERVICES

The contractor shall identify and apply modern Development, Security, and Operations (DevSecOps) best practices that provide for secure and continuous development, test, and, operations activities. The contractor shall establish a continuous integration, delivery, and user feedback methodology resulting in systematic, repeatable, secure, and streamlined delivery of capabilities to the production environments. The contractor shall comply with the DoD

Enterprise DevSecOps Reference Design, where possible, and notify the OCMO/OUSD(C) TPOC and FEDSIM COR in writing otherwise.

The contractor shall provide development support including architecture support, systems engineering, software engineering development and integration, algorithm development, security planning and compliance (including achieving Authority to Operate (ATO)), system level testing, and innovation development and implementation. Additional contractor support shall include the following:

a. Identifying web and data applications that require replatforming, reengineering, or infrastructure support and fit within the mission and function of the OUSD(C) and OCMO.
b. IT architecture and engineering support.
c. Supporting the integration, development, testing, and deployment of enterprise data analytics applications within the security boundary of the OUSD(C) and OCMO solutions, assuming operational control where needed.
d. Integrating applications using a common security framework, operational workflow, and toolsets, without impacting tangential accreditations across DoD networks and solutions.
e. Enabling the ability to integrate and test COTS/GOTS products (as an entire solution or as part of an overall system solution).
f. Enabling the ability to quickly augment and enhance existing tools, applications, and methodologies to advance analytic efforts and maintain currency with changing terrorism milieu.
g. Providing technical advice and engineering guidance for next-generation planning efforts, including integration with other enterprise services.
h. Providing system initialization, deployment, accreditation, and system administration functions for all unclassified and classified Artificial Intelligence (AI) model containers.
i. Developing the necessary Transition Planning including user training, support staff training, and any applicable decommissioning activities for systems/services that have been replaced or enhanced (**Section F, Deliverable 18**).
j. Supporting IT architecture and engineering for IT Enterprise Continuity of Operations (COOP)/Disaster Recovery (DR), and service availability.
k. Planning and implementing mission capabilities and transitioning to enterprise services, virtualized, and cloud-based technologies.
l. Developing, deploying and maintaining fully automated data pipelines in accordance with all applicable DoD IT control standards.

The contractor shall maintain flexibility for both a cloud and hybrid cloud approach in all migration of data, infrastructure, and application development. The contractor shall support strategic partner requests and priorities and research, design, and prototype solutions to store, rapidly access, analyze, and maintain data sets to be used within customized application workflows, dashboards, and interactive data visualizations.

The contractor shall provide comprehensive documentation and information necessary to monitor the DevSecOps processes, procedures, and/or policies that were implemented in the creation of the applications (**Section F, Deliverable 20**).

C.5.2.1.1 SUBTASK 2.1.1 –SYSTEMS AND SOFTWARE DEVELOPMENT

The support provided by the contractor shall cover the entire IT engineering lifecycle including requirements gathering, system design and development, installation, integration and testing, and sustainment. The contractor shall use agile methodologies for software development, where the development is organized into one or more releases consisting of multiple sprints. The contractor shall develop, deploy and maintain fully automated DevSecOps solution. The contractor shall define the frequencies and durations of the releases and sprints during project planning and submit for approval by the OUSD(C) and OCMO TPOCs. The contractor shall provide weekly progress updates and demonstrations to the Government and update the contractor schedule for the Weekly Status Report (WSR) (**Section F, Deliverable 21**).

During project planning, the contractor shall define team structure, development environment, system requirements, and mission interaction; and, the contractor shall review the architectural specification, high-level system design, and current supporting processes. The contractor shall deliver a Development Sprint Plan to document the design approach, agile code development, integration, test, quality, and configuration control processes and procedures that will be utilized in the project, involving mission elements to verify design, functionality, and implementation plans (**Section F, Deliverable 22**).

The contractor shall coordinate with the Government, as required, during project preparation or development sprints for the performance of tasks including:

a. Identifying and setting up all necessary tools to support the development and management activities.
b. Identifying processes and plans for mission interaction to understand mission needs, gather requirements, validate design and planning implementation, acquire feedback, and deliver products and capabilities commensurate with mission needs and priorities.
c. Establishing the most effective agile framework.
d. Defining processes such as code control, daily builds, and regression tests.
e. Defining or updating processes and procedures for configuration control.
f. Coordinating with IT security and preparing or updating security-related documentation.
g. Setting up and testing the integrated development environment and other development tools.
h. Defining processes for documenting user stories, business priorities, and planned enhancements with the estimated effort for each requirement.
i. Producing or updating the interface control document and interface design document(s) to identify and characterize all the external interfaces.
j. Producing or updating the System Design Document (SDD), including system architecture design and the design of external interfaces to be extensible and scalable (**Section F, Deliverable 23**).

k. Producing or updating the Database Design Document (DBDD) and documenting the logical database schema (**Section F, Deliverable 24**).
l. Producing or updating the Test and Evaluation Master Plan (TEMP) (**Section F, Deliverable 25**).
m. Identifying the list of software tools, licenses, and hardware needed by the team for development and documentation in the Bill of Materials (BOM) (**Section F, Deliverable 26**).
n. Producing or updating the User Training Plan (**Section F, Deliverable 27**).

The contractor shall provide portfolio backlog planning to support the Government's long-range program objectives. The contractor shall develop a Release Plan based on product backlog priorities set by the Government and aligned with a product roadmap that documents the schedule and contents of proposed system releases for deployment (**Section F, Deliverable 28**). The contractor shall coordinate with the Government and update the release plan prior to each release deployment.

The contractor shall coordinate with the Government and conduct sprint planning meetings to plan each sprint based on backlog priorities, estimated effort required, and scope and resources available during the sprint. The contractor shall document the planned requirements for the sprint in the sprint backlog.

In conducting agile sprints, the contractor shall complete tasks including:

a. Defining the schedule for all agile ceremonies and providing it to the Government for attendance, depending upon availability.
b. Designing and coding the system to meet the requirements documented in the sprint backlog.
c. Demonstrating each sprint release to the Government and mission owner for approval to deploy to the testing environment.
d. Developing the system and interface test procedures, test cases, and test data in accordance with the TEMP. The test procedures shall include test pre-conditions, test sequences, and anticipated results/assertions.
e. Updating the Requirements Traceability Matrix (**Section F, Deliverable 29**).
f. Performing functional tests and documenting the test results. The functional tests shall address the verification that all requirements, specified in the sprint backlog, have been met.
g. Conducting a sprint review/retrospective on the final day of the sprint, including final accounting of user stories planned, completed, added, and deferred with demonstrations of functionality completed during the sprint.

The contractor shall conduct a sprint review to update and re-prioritize a product/change request/development requests backlog based on Government direction and as appropriate. The sprint review shall include reviewing technical details of features developed in the sprint, documenting lessons learned, documenting development metrics, and updating a product backlog, as required. A summary of the results of the sprint review that identifies the technical accomplishments of the sprint cycle shall be documented in a Sprint Summary Report and

described in non-technical terms (**Section F, Deliverable 30**). The Sprint Summary Report shall include user stories as well as planned, completed, added, and deferred results.

C.5.2.2 SUBTASK 2.2 – SYSTEM AND DATA MIGRATION

The contractor shall provide system and data migration from the OUSD(C) and OCMO development environments to the deployment environments (e.g., Advana or other data analytics environments), including:

a. Preparing a System Migration Plan to document plans for migrating data, application containers, and system operation and integrating new components into existing programs or replacing programs (**Section F, Deliverable 31**).
b. Preparing migration procedures that describe the steps and activities required to complete migration (**Section F, Deliverable 32**).
c. Developing back-out procedures required for returning the application to a previous operational state, in the event a difficulty is encountered in one or more steps during the migration (**Section F, Deliverable 33**).
d. Building and implementing the migration solution.
e. Migrating data from authoritative data sources to the Advana or another analytics environment, as directed by the Government.

C.5.2.3 SUBTASK 2.3 – SYSTEMS INTEGRATION

The contractor's system integration approach shall support the rapid and efficient insertion and refreshment of technology through a modular design and use of open standards and open interfaces. The contractor, in conjunction with the Government, shall define the functional partitioning and the physical modularity of the system to facilitate future replacement of specific subsystems and components by third parties without impacting other parts of the system.

The system integration architecture shall minimize inter-component dependencies to allow components to be decoupled. Specifically, the contractor's integration approach shall result in modules that have minimal dependencies on other modules (loose coupling) with widely accepted and well-defined standards-based interfaces and the absence of undocumented data sharing or service calls. The contractor shall specify, publish, and maintain widely accepted and well-supported open standard interfaces for all modular integration. The purpose is to ensure that any changes to one module will not necessitate extensive changes to other modules and, hence, facilitate module replacement and system enhancement. The contractor shall describe its approach to determine the level of coupling and the design trade-off approach. Additionally, the contractor shall be responsible for system-wide data mapping and data management services, which include the facilitation, orchestration, and management of a multi-faceted data environment (potentially polyglot/multi-model) and optimizing the data environment to support scalability and performance.

The contractor shall provide the Government information needed to support third-party development and delivery of competitive alternatives of design for software or other components or modules on an ongoing basis (**Section F, Deliverable 34**). The contractor shall also work closely with the Government and third-party providers to maximize module re-use and determine

how to best leverage system and module services by enabling those capabilities to be broadly available to other developers and identifying any issues with scalability, latency, licenses, or other issues that could interfere with the efficient use of a service. At the same time, the contractor shall respect and work to protect all intellectual property rights of third party providers through Associate Contractor Agreements (ACA) as defined in **Section H.19.**

The contractor shall provide systems integration services, including:

a. Identifying component subsystems of the overall system and determining the requirements for ensuring that the subsystems work together to function as a single system, including integration paths for partner agency data, both regularly shared and ad-hoc in nature, to enable rapid exposure to analysts.
b. Planning, documenting, and maintaining solutions to total systems or subsystems that use internally created and/or COTS products (**Section F, Deliverable 35**).
c. Providing a Total System Perspective including relationships, dependencies, and requirements of hardware and software components (**Section F, Deliverable 36**).
d. Researching COTS and GOTS solutions to solve integration problems and/or meet system requirements.
e. Ensuring that the mission applications/tools, web systems, and portals integrate effectively with existing enterprise systems and data stores with the goal of maintaining a well-connected, secured, and controlled enterprise of systems that maintains high systems availability with rapid development and exposure to analysts.
f. Ensuring service development follows the structured development, test, and release management processes in addition to stringent change management and configuration control. Identifying, developing, coordinating, maintaining, delivering, and updating required interface specifications, including the definition of services, data flows, and dependencies for internal and external service providers.
g. Integrating and optimizing workflow, automation, manual processes (where necessary), and feedback loops across the DevSecOps environment and with mission owner elements to enable automated, continuous capability delivery to mission.

C.5.2.4 SUBTASK 2.4 – TESTING SERVICES

The contractor shall provide Test and Evaluation (T&E) services of the data models against metrics determined prior to model development and testing of the final integrated product. Where possible, the activities shall be answered within the agile development framework for system development in conjunction with the OUSD(C) and OCMO T&E team. For data models, T&E will occur once selected models are promoted for use, to ensure the model meets all defined metrics.

During testing, the contractor shall engage with the end-user community and designated representatives (e.g., proxies and testers) on a frequent basis. Development and testing shall include use of automated regression test techniques as part of a Continuous Integrations (CI)/Continuous Development (CD) process.

The contractor shall provide engineering support required to review, assess, and analyze all levels of system documentation to identify and define test requirements. The contractor shall provide Requirements Traceability and Change Impact Assessments in close coordination with the OUSD(C) and OCMO T&E team (**Section F, Deliverable 37**). The contractor shall conduct unit and integration testing prior to delivery, but T&E will be conducted through the OUSD(C) and OCMO T&E team with outside support, if necessary. The contractor shall develop, deploy and maintain automated T&E. The OUSD(C) and OCMO is striving for full testing automation.

The contractor shall evaluate test coverage with respect to test type, test validity, test scenarios, test conduct, test results, and problem report content. The goal is to reduce the number of defects or problems reported upon integration into operational Enterprise IT platform systems using AI capabilities for continually improving software verification level test methods.

The contractor shall plan, conduct, participate, and execute T&E activities including:

a. Developing, revising, and maintaining Test Plans (including security test plans) in coordination with the OUSD(C) and OCMO T&E team (**Section F, Deliverable 38**).
b. Preparing Security Test Procedures (**Section F, Deliverable 58**) and Security Test Reports (**Section F, Deliverable 59**) specific to any of the AI/ Machine Learning (ML) models and Application Program Interfaces (APIs) produced.
c. Updating the test plans to reflect changes to existing tests due to enhancements or deficiency corrections.
d. Preparing the test environment, including the setup and breakdown of test equipment and systems.
e. Executing tests according to the test plans and test procedures and collecting test data.
f. Documenting deficiencies via Problem Reports (PRs) and providing a Final Test Report (**Section F, Deliverable 39**).

The contractor shall analyze test data and perform the following:

a. Provide a Deficiencies Assessment of deficiencies uncovered during testing including support of root cause analysis and solution recommendations (**Section F, Deliverable 40**).
b. Provide a Test Procedure Improvements Recommendation to facilitate improved deficiency detection (**Section F, Deliverable 41**).
c. Assess the impact to other system components of deficiencies uncovered during testing.
d. Perform Trade-off and Analysis of Alternatives Assessments (**Section F, Deliverable 42**).
e. Provide test artifacts, objective quality evidence, and detailed analysis results.
f. Document user feedback for incorporation into future development actions.

The contractor shall conduct, participate, or provide witness in system T&E, certification, and training events to be held at Government or non-Government venues, as needed. Events shall include the following:

a. Developer/Capability Test.
b. Integrated Software/System Level Test.

c. Formal Qualification Test (FQT).
d. Verification and Validation (V&V) Test.
e. Software Build FQT.
f. Segment/System Test.

C.5.2.4.1 SUBTASK 2.4.1 – TEST ENVIRONMENT

The contractor shall sustain a Government provided enterprise test environment that is representative of all production environment systems in order to facilitate Government-specific test and validation requirements, training, and evaluation.

All source code evaluation, scanning, and testing (e.g., function security, load, performance, etc.) shall be conducted within the test environment. The contractor shall not use proprietary code without express written approval from the Government. The contractor shall address any issues encountered during installation of test media or test execution, and it shall resolve any problems with the applications. For the majority of testing, OUSD(C) and OCMO requires the use of the Government-provided test environment; however, in certain circumstance (as directed by the Government), the contractor may be required to provide a development and integration environment under this TO. In such event, the associated development shall be performed at the contractor's isolated development environment. A development, integration, and test environment, if required, shall accommodate rapid development and enterprise-wide implementation.

The contractor shall provide media for all source code, installation kits, software, and documentation. It shall include those related to architecture, test design, test results, and installation procedures, and it shall build procedures/scripts in a secure manner at the end of each update.

C.5.2.5 SUBTASK 2.5 – OPERATIONS AND MAINTENANCE (O&M)

The contractor shall provide support to sustain and operate system(s). The contractor shall perform general O&M, troubleshooting, and repair of Advana platform and existing connections to source systems.

The contractor shall coordinate with the Government and implement a system/software Lifecycle Management Process (**Section F, Deliverable 19**) to achieve a single lifecycle for the program. It shall include planning, designing, developing, integrating, and testing verification and validation activities applicable to both enhancement of current technologies and creation of new capabilities that include automation, data science, big data analytics, data ingestion and manipulation, Software Development Kit (SDK), ML, AI, elastic computing, emerging/emergent technologies, Publicly Available Information (PAI) exploitation, social network analysis, alerting and warning, and advancing traditional analytic methods.

The contractor shall modify application software and systems to include corrective maintenance, preventative maintenance, and modifications needed to meet new user requirements, changes in underlying design, or aging system or architecture issues. In addition, the contractor shall install and configure automated tools to track network configuration; monitor status and performance; detect, diagnose, and resolve network problems; and project future capacity requirements.

The contractor shall provide O&M support to a Government-owned commercial cloud service provider environment. This will be a Government-owned account procured, through the ODC CLIN of this TO, and administered by the contractor on behalf of the Government.

C.5.2.6 SUBTASK 2.6 – OTHER ENGINEERING SERVICES

C.5.2.6.1 SUBTASK 2.6.1 – DATA OPERATIONS AND GOVERNANCE

The contractor shall provide data operations and governance within this TO including developing data access workflows, integrating new tools and capabilities, and providing capacity management, Configuration Management (CM), and automation. This shall include continuous evaluation of the effectiveness, cost, and performance of the infrastructure to provide analytic capability to a growing user population and increasingly complex data analytic capability.

The contractor shall be responsible for maintaining high throughput through a continuous reliable data pipeline and automated data ingest capability, demonstrating the capability to identify source data, allocate high-priority data systems, configuration items, and risks. The contractor shall also track data requests and provide weekly status updates on progress.

The contractor shall coordinate with user stakeholders to influence data planning processes and with functional stakeholders to prioritize high-value data streams. The contractor shall be responsible for providing expertise and input in working with various data providers and data transport mechanisms such as direct connect to source systems, File Transfer Protocol/Secure File Transfer Protocol (FTP/SFTP), and Representational State Transfer (REST) API Coordination efforts to support existing and future Memorandum of Agreements (MOAs) (**Section F, Deliverable 45**), enabling compliant and consistent data feeds as part of automating data pulls from source systems.

The contractor shall develop standard analytic data models, linkages, metadata, and definitions; validate received data transformed against known business rules and data structures; and coordinate with stakeholders to gain acceptance. The contractor shall provision tools to safeguard the information base of an environment using a comprehensive security model, ensure users have unaltered roles and permissions ascribed, and ensure the system unequivocally enforces these roles and permissions. The contractor shall be responsible for reporting monthly on data quality issues impacting IT portfolio decision making at the enterprise level (**Section F, Deliverable 46**) and developing and curating a data catalog for improved discoverability and understandability of data, encouraging a collaborative environment (**Section F, Deliverable 47**). The contractor shall also be responsible for insurance of governance controls to support Personally Identifiable Information (PII), Protected Health Information (PHI), and Business Sensitive and Classified Data.

The contractor shall support the development of an automated data pipeline, data storage, and data access capabilities that will support the integration and loading of new data sets, perform basic transformations, perform metadata tagging, and provide visual metrics and reports. The contractor shall automate Quality Assurance (QA) of data feeds, provide detailed logging information, and automate routing of incomplete records as to not disrupt the pipeline. The contractor shall continuously research, design, and prototype custom and off-the-shelf tools (i.e.,

COTS and/or GOTS) and methods to identify trends and report on technological advancements supporting automated data ingest, data fusion and transformation, data storage, data access, analytics, and data security across DoD functional areas.

The contractor shall also provide the following services:

a. Develop API for data availability to the enterprise (**Section F, Deliverable 48**).
b. Develop strategies for persistent advanced analytics on data ingest.
c. Promote self-service analytics by enabling user defined data ingest in line with platform-approved governance models, security, and data quality and provide data operations consulting services for stakeholders and organizations that require it.
d. Develop data sandbox environments for user or organization-specific analytics.
e. Develop, update, integrate, and maintain a suite of tools to support data discoverability, understandability, transformation, analysis, and usability (**Section F, Deliverable 49**).
f. Perform, build, or buy analysis for financial feasibility, research, and development of new capabilities and maintain and extend the data.mil homepage and integrated components.

C.5.2.6.2 SUBTASK 2.6.2 – CONFIGURATION MANAGEMENT (CM) SUPPORT

The contractor shall develop, maintain, update, and implement CI; control configuration baselines; and conduct functional and physical configuration audits. CM may include non-IT assets, work products used to develop the services, and CIs required to support the services that are not formally classified as assets. The contractor shall provide a CM Plan **(Section F, Deliverable 50).** The contractor shall provide the following CM support:

a. Ensure systems compliance with DoD standards and documented reference models.
b. Ensure integrity between business requirements and CIs by maintaining an accurate and complete CM system.
c. Ensure all systems changes are documented against current systems baselines and satisfy validated requirements.
d. Maintain operational level configuration items including application documentation, training materials, system design documentation, and/or application operation startup/power down procedures.
e. Establish and maintain program and project-level CM technical data repositories tracking Engineering Change Proposals (ECPs), PRs, Requests for Waivers (RFWs), Requests for Deviations (RFDs), Specification Change Notices (SCNs), Notice of Revisions (NORs), and other configuration item data and requests. The contractor shall maintain and operate web-based CM server repositories.
f. Establish appropriate authorization controls for modifying CIs and verifying compliance with software licensing.

C.5.2.6.3 SUBTASK 2.6.3 – CYBERSECURITY SUPPORT SERVICES

The contractor shall implement and maintain all aspects of cybersecurity engineering support in accordance with all Federal, DoD, and agency-specific security initiatives. The contractor shall implement all phases and aspects of the DoD accreditation/certification policies and procedures

for DoD IT during the entire lifecycle for all systems and environments. The contractor shall evaluate, identify, and implement innovative cybersecurity practices and tools to enable the Government to meet security standards with the greatest possible efficiency.

The contractor shall:

a. Incorporate evolving cybersecurity requirements and emerging technologies to comply with the DoD Architectural Framework (DoDAF).
b. Support cybersecurity-related administration tasks, including providing system remediation and configuration and developing Assessment and Authorization (A&A) documentation
c. Maintain the platform/systems to meet requirements for certificate-based authentication (i.e., CAC and Public Key Infrastructure (PKI)) and integration with DoD enterprise authentication policies, procedures, and systems.
d. Support DoD standards for A&A processes and procedures (e.g., Risk Management Framework (RMF) and Platform IT (PIT)).
e. Implement and validate Security Technical Implementation Guideline (STIG) requirements, installation checklists, and other security process requirements.
f. Maintain a high state of cybersecurity compliance and operational availability by monitoring and applying all applicable STIGs and patches within the mandated implementation period for the Advana, OUSD(C), and OCMO systems.
g. Provide technical support for Statement on Standards for Attestation Engagements (SSAE)-18 audit.
h. Conduct annual cybersecurity assessments or support a third-party assessment to evaluate Advana's ability to meet cyber risk management standards and frameworks.

C.5.2.6.4 SUBTASK 2.6.4 – PROVIDE COOP/DR IT SUPPORT

The contractor shall provide IT support to OUSD(C) and OCMO with COOP/DR efforts. The contractor shall accomplish failover testing to internal backup systems and external replication sites. To meet the failover testing requirement, the contractor shall prepare and maintain COOP and DR operations artifacts.

C.5.3 TASK 3 – DATA SCIENCE AND ENTERPRISE ANALYTICS

The contractor shall provide data operations and governance within the Advana platform or other supporting analytics environments as directed by the Government. At a minimum the contractor shall be responsible for:

a. Deploying analytical concepts and AI solutions into a usable, demonstrable, full-stack capability and providing a unique combination of expertise, data science exploration, algorithm development, statistical model validation, stakeholder verification of mission impact, and solution operationalization.
b. Employing multiple agile teams with multidisciplinary skillsets across the variety of business domain challenges and leveraging use case teams comprised of data scientists,

software developers, production analysts, and software testers. The contractor shall also optimize prototypes and convert proven ideas into robust capabilities for delivery.

c. Delivering on-demand data science capability to allow DoD organizations to continuously and persistently leverage data science to positively impact the operating mission, leveraging a team comprised of both highly experienced data science experts and functional expertise with deep rooted knowledge of the business domain, mission space, and data.
d. Obtaining, integrating, cleaning, and preparing data for analysis from a wide variety of sources and formats, and exploring, analyzing, and summarizing large, diverse datasets through multiple techniques (e.g., visualizations and interactive dashboards) to enable decision making. The contractor shall demonstrate the ability to work with and handle information assets characterized by a high volume, velocity, variety, and/or veracity that require technology that employs massively parallel processing to deliver insights into the data.
e. Performing statistical learning and pattern recognition through unsupervised, supervised, and reinforcement learning methods.
f. Leveraging deep learning techniques/technologies such as neural networks/Graphical Processing Units (GPUs) to gain unique insights consistent with the Joint Artificial Intelligence Center (JAIC) guidelines and support Robotic Process Automation.
g. Researching data fusion efforts that may include the receipt, storage, analysis, and protection of PII or PHI of DoD military and civilian personnel and military personnel dependents (**Section F, Deliverable 80**).
h. Researching an enterprise-wide data integration environment to address DoD information analysis. This research shall develop and provide the data platform and analytical tools for authorized DoD Office of People Analytics; Defense Manpower Data Center; and Military Department staff officers, researchers, and analysts to discover and connect data and produce actionable policy and program insights (**Section F, Deliverable 81)**.
i. Providing data model support for user-defined data structures, schemas, and data ingest capabilities. The contractor shall ensure data ingested does not violate existing PII, PHI, Business Sensitive, and Classified data exposure policies and implement guardrails and automated checks to prevent data spillage.
j. Developing Secure API mechanisms for users to develop machine to machine interfaces to retrieve data for external application use (**Section F, Deliverable 60**).
k. Providing tools, applications, and training for users to conduct independent assessment of data under their control and explore, analyze, export, and publish insights they create with the data.
l. Creating prototypes/proof of concept demonstrations utilizing rapid development of new data pipelines that can be used for future, more frequent, automated data feeds.
m. Coordinating with functional and technical stakeholders to define methods for enriching, aggregating, and exposing data in a curated form to support analytics at scale in support of the prototype use cases.
n. Researching and defining master data management techniques to centrally manage lookup tables, business glossaries, and data profile information.

o. Deploying validated models into production to support the development of decision support tools, dashboards, workflows, and munitions related use cases.
p. Implementing auditable controls that prohibit users from updating, deleting, accessing, viewing, or otherwise manipulating data that is outside their explicit control.

C.5.4 TASK 4 – END USER SUPPORT SERVICES

The contractor shall ensure that the platforms/systems are in line with the needs and specific requirements of the user population and ultimately improve human interface of the systems/platforms. Requirements of this subtask may include, but are not limited to, evaluation of future needs and trends, user-centered design, rapid prototyping, development, testing, and deployment. The contractor shall provide training and end-user support on existing and newly integrated products. This support shall be tailored by the contractor on a product-by-product basis with direction from the Government and documented in the PMP for the product (**Section F, Deliverable 61**). The contractor shall leverage new training methods and technologies in order to replace existing, in-person classroom training. The contractor shall ensure users are able to learn a system properly and employ the system through the simplification of the user interface. Gaps in intuitive learning shall be augmented by innovative solutions including searchable message boards, chats with experts, and in-software help widgets. The contractor shall support all data product customer-support tasks in both Continental United States (CONUS) and Outside CONUS (OCONUS) locations.

C.5.4.1 SUBTASK 4.1 – SYSTEM AND USER SUPPORT

The contractor shall continuously evaluate, and update the users' experience and user interface as necessary. The contractor shall provide system and end-user support on a product-by-product basis. These services shall be included in the PMP for the product in concert with the deployment and sustainment stakeholder engagement. As part of this subtask the contractor shall provide:

a. Outreach and relationship management, which includes:
    1. Collecting community/user feedback and analyze and assess results to provide recommendations for continuous systems improvement (**Section F, Deliverable 53**).
    2. Designing and testing hardware and software user interfaces to optimize user performance and reduce the likelihood of user errors (**Section F, Deliverable 54**). The designs shall be compatible with user capability and limitations.
    3. Developing, maintaining, and executing user training materials on a per product basis (**Section F, Deliverable 62**) and user outreach plans (**Section F, Deliverable 51**).
    4. Providing continuous user/stakeholder engagement to gather user feedback, introduce new features, and answer frequently asked questions. As part to of user engagement activities, the contractor may be required to attend conferences, panel discussions, and other engagement events to promote and further the use of analytics and enterprise insights and development of tools across the enterprise.

5. Developing automation, guided workflows, web-based tutorials, and self-help (where appropriate) for user onboarding and new users.

b. Business planning and a full spectrum of requirements management services, which includes:
    1. Translating business needs into actionable requirements.
    2. Engaging OUSD(C) and OCMO on emerging business needs and develop business cases of potential solutions.
    3. Analyzing, proposing, and matching business and user needs with new or currently available technologies for end-users.
    4. Purchasing, monitoring, negotiating, and evaluating enterprise licenses for essential COTS tools.
c. Monitoring and event management services, which includes:
    1. Continuously monitoring and managing the health and performance of the system/network. The enterprise monitoring and event management solution shall meet all policies and mandates for system security, including the ATO.
    2. Continually identifying opportunities to enhance monitoring with new integration and capabilities and employ self-healing techniques for remediation.
    3. Developing proactive strategies and automations (where applicable) to prevent, detect, and remediate service impacting issues and improve overall incident response efficiency (**Section F, Deliverable 68**).
    4. Continuously monitoring the network and supporting infrastructure for breaches, logs, and tracking events.
    5. Escalating events, when applicable, to incidents or problems and record when they are address and closed.
    6. Utilizing ML to monitor, analyze, assess, and review audit trails, logs, and other information collected to identify network/system events that may constitute violations of system security.
d. Access management, which includes:
    1. Recommending and implementing an access management process that establishes processes and creates and maintains user accounts for mission applications (**Section F, Deliverable 67**).
    2. Establishing and maintaining account management using Role-Based Access Control (RBAC) for systems access including user accounts for prototypes and developmental systems.
e. Request fulfilment, which includes:
    1. Developing a service catalog to advertise capabilities across the enterprise to support simplified inter-agency transactions and cost sharing (**Section F, Deliverable 44**).
    2. Recommending and implementing a request fulfillment process that responds to user requests in a timely and efficient manner (**Section F, Deliverable 69**).
f. Incident, problem, and outages management, which includes:

1. Accurately detecting and responding to incidents, problems, outages, and security threats across the enterprise systems and providing intelligent insights that enable quick response measures to reduce the impact of incidents and proactively prevent future incidents.
2. Recommending and implementing an incident management process (**Section F, Deliverable 70**) and monitoring the infrastructure and capabilities for emerging and actual incidents, problems, outages, and other events impacting IT performance.
3. Fixing faults and restoring services.
4. Providing preventative mitigations to faults and service degradations, where possible, through proactive measures to address service degradation or interruption for users (**Section F, Deliverable 70**).
5. Providing a proactive problem management process (**Section F, Deliverable 71**) that includes measures of error prevention, trend analyses, actions and measures, and preparation of quality reports (**Section F, Deliverable 72**).
6. Supporting the Government's development of an automated dashboard showing the status of the network and system performance, security compliance, and other metrics as requested by the Government.
7. Providing problem management during normal business hours (8:00 a.m. Eastern Time (ET) – 5:00 p.m. ET) with a response (e.g., phone, email, chat, as applicable) during non-standard hours (i.e., after hours, weekends and Federal holidays), no later than 24 hours after problem identification.

C.5.4.2 SUBTASK 4.2 – TIERS 1, 2, AND 3 CUSTOMER ASSISTANCE SUPPORT

The work to be performed under this task encompasses full spectrum Tiers 1, 2, and 3 Customer Assistance Support. The contractor shall implement processes that clearly demonstrate how information will flow through one individual until customer satisfaction is achieved. The contractor shall provide status updates and reports as required for the Tiers 1, 2, and 3 Customer Assistance Support activities utilizing a monthly report summarizing activities completed for this subtask (**Section F, Deliverable 73**). Specifically, the contractor shall:

a. Develop an SOP for Tiers 1, 2, and 3 customer assistance operations within 60 calendar days of PS and update it bi-annually (**Section F, Deliverable 74**).
b. Provide Tier 1 live-person customer assistance and support services for OUSD(C)'s and OCMO's websites, systems, and applications 24 hours a day, seven days a week, and 365 days a year (24/7/365).
c. Provide 24/7/365 Tier 2 IT support when required to investigate and troubleshoot non-technical issues.
d. Provide 24/7/365 Tier 2 and Tier 3 IT engineering support when required to investigate and troubleshoot issues.
e. Acknowledge receipt of all customer assistance requests within two hours.
f. Notify users of system outages and establish/maintain a business process to ensure any system outages, scheduled or not, are known and conveyed to users.

g. Perform account maintenance and setup activities, including creating, modifying, and/or deleting user accounts in support of OUSD(C) and OCMO account maintenance SOPs within 60 days of PS and quarterly thereafter.
h. Assist users in gaining access to their existing accounts (e.g., resets and lockouts).
i. Develop and maintain a Tier 0 (self-service) knowledge base to allow for rapid lookups of common issues within 60 days of PS and update it monthly.
j. Analyze and recommend improvements to OUSD(C) and OCMO customer support methodologies.
k. Prepare and submit monthly customer assistance and support metrics reports including the number of support queries received, resolved, and pending and a summary of the top ten help trends (**Section F, Deliverable 75**).

C.5.5 TASK 5 –INNOVATIVE IT TECHNOLOGIES RESEARCH AND INTEGRATION

The contractor shall analyze and review the latest advances in IA technology including commercial, non-commercial, and GOTS solutions and industry best practices to optimize the current systems. The contractor shall facilitate connections with industry, academia, and startups to capture new inspiration, ideas, and partnerships that address long- and short-term mission critical needs. The contractor shall develop a process to implement the Government-approved initiatives to be compliant with all applicable DoD processes and policy. The approach shall define both holistic and incremental processes for achieving the approved/required capability and at a minimum perform the following:

a. **Analysis**: The contractor shall provide analysis of the emergent and emerging technologies and/or process (**Section F, Deliverable 76**). The contractor shall assess the current platform baseline, identify opportunities for improvement including recommendations for software and services (**Section F, Deliverable 77**), and provide recommendations for implementing innovations. The contractor shall clearly identify any risks associated with the recommendations. Based on the contractor's analysis and applicability of the latest advances in technology to the analytics environment, the Government will determine when and if a particular innovation support is required.

b. **Prototype (if applicable) and Design**: The contractor shall provide detailed design in accordance with the concept of operations (CONOPs), including cybersecurity and migration strategies (**Section F, Deliverable 52**). The contractor shall provide Test Strategy and test execution. The contractor shall deliver prototype/proof of concept (when applicable).

c. Monitor and Report Innovation Results (Section F, Deliverable 55): The contractor shall provide qualitative and quantitative results comparing the planned benefits identified in the Analysis to the actual benefits achieved.